Applicant reasserts the amendments and remarks of the Preliminary Amendment of 3/3/08, attached and intended to be fully incorporated herein by reference.

The claims have been amended to overcome the rejection based on §112.

The Remarks section of the Preliminary Amendment did not have the benefit of the Action of 3/19/08, however. In response thereto, applicant further submits herein a §132 Affidavit from a pilot of private aircraft, attesting to a long felt need for private aircraft capable of loading and unloading their cargo as large objects. Applicant also submits the further remarks.

Re §103 Rejection

Summary Re Motive to Combine

As argued on page 3 and following in the Preliminary Amendment, (see references there) the Scaled Composite Reference (re "aft loading" ATTT) teaches away from using a two surface canard, a canard without an empennage. Rutan, in disclosing the development of the aft loading ATTT, teaches away from employing a two surface canard design.

On the other hand, Rutan does not teach or suggest a large opening at the end of the fuselage for the Rutan '800. Such would not be structurally possible, given Rutan's carefully centered rear thrust in accordance with classic two surface canard design. (See Canard book.)

The history of two surface canards, as discussed beginning on page 3 and continuing to page 4 of the above referenced Preliminary Amendment, does not teach or suggest a two surface canard absent thrust or vertical stabilizer/rudder empennage structure. Classic two surface canard design is not suitable to accommodate a large opening at the rear of the fuselage through which large objects can be loaded. Rather, the history of two surface canard design teaches an empennage comprising a pusher engine or a vertical stabilizer/rudder. Rutan does not break with this tradition.

Pages 4, 5 and 6 of the Preliminary Amendment supply reasoning supported by evidence as to why there is a lack of motivation to make the combination asserted by the Examiner. Specific evidence and detailed reasoning supporting the Examiner's asserted motive to combine is not presented. Applicant submits, thus, that the Action fails to sustain the necessary prima facie case in regard to motive to combine.

The following facts appear not to be in dispute:

- Aircraft with a rear opening fuselage (for large cargo objects) have been long known.
- The value of rear opening fuselages (for carrying cargo in the form of large objects) has been long known.

- Two surface canard designs have long been known for aircraft (since the Wright brothers.)

Despite this long knowledge and felt need, no one has combined a rear fuselage door with a two surface canard. Why? Applicant submits

- First, two surface canard designs are disfavored in the history of aircraft design. Quite likely two surface canard designs form less than 0.01% of commercial aircraft. This disfavor of the design should at least be a matter of common knowledge and judicial notice.)
- Second, to the best of applicant's knowledge and belief, all two surface canard design have, rear centered: (1) power or (2) vertical stabilizer/ rudder. (Preliminary Amendment develops reasoning here.)

A rear centered power or vertical stabilizer/rudder are incompatible with applicant's design. There is no teaching or suggestion that both may be sacrificed. The Examiner points to none. It is only applicant's teaching that suggests such.

Re KSR factors:

- The instant invention is not an advance that would be expected to occur "in the ordinary course" of progress. (KSR) "The ordinary course of progress" for this invention is long past.
- The industry is not "inevitably switching" (KSR) to two surface canard designs. The design has been long known and disfavored.
- This is not a case where there exists a "finite number of identified, predictable solutions." (KSR) The instant solution is neither identified nor predictable. The closest cited prior art, the ATTT, teaches away.

In the instant case the design need and market pressure have long been known. The individual elements of the instant particular solution have been long identified. Although many, many other solutions have been proposed, applicant's particular combination has never been taught. First, selecting a two surface canard in lieu of a boom supported, rear horizontal control element, or cruciform tail, goes against the great weight of the teaching of historic aircraft design. Second, proposing a two surface canard without rear centered power or vertical stabilizer/rudder follows no precedent in two surface canard design. (See History of Canard book.) Such combination goes against the great weight of two surface canard design teaching. We reference the history of Canard design book.

In light of the amendments, and arguments herein, and in the attached and incorporated by reference Preliminary Amendment mailed 3/3/8, applicant submits that the claims are in condition for

allowance. (1)Applicant has amended the claims to eliminate the "vague and indefinite" term, "door type." In regard to independent claims 1 and 11 and the §103 rejection of independent claims of 1 and 11, applicant has presented evidence that motivation to combine the Examiner's proposed elements is not present. While the Examiner asserts it would have been obvious to have used a rear end fuselage door, as contemplated by the Rutan ATTT design, on the Rutan '800 design, the drawings of the Rutan '800 disclose that the Rutan '800 per se is incompatible with a rear door fuselage. The twin pusher engines at the Rutan '800 are rear centered following classic two surface canard design. The Rutan '800 twin pusher engines do not allow space for a door at the end of the fuselage. There is no enabling disclosure of a Rutan '800 design that provides room for a door at the end of the fuselage.

To the extent that the Examiner is asserting that it would be a matter of mere design choice to locate the twin pusher engines further out on the wing of the Rutan '800, applicant respectfully traverses. Such design flies in the face of traditional two surface canard teachings. Rutan himself, viewed as a whole, teaches away from such. It is well known that twin engine crafts have to demonstrate the ability to fly with one engine. The Examiner presents no evidence that such could be demonstrated on a Rutan '800 where the engines were moved laterally several feet outward from the longitudinal axis. The requirement that flying with one engine be demonstrated by every distinct twin engine design contradicts any facile assertion that it would be obvious that it could.

There is a decided preference in two surface canard design for rear centered pusher engines. This preference is evident throughout the history of two surface canards. Such pusher engines inhibit a rear fuselage door for loading large objects. See cover of Canard a Revolution in Flight, and Rutan '800.

Specifically, in regard to the instant inventor's witnessing of the successful testing of a canard with a single tractor engine, that craft was the Quickie. See supplemental IDS. It is clear that the Quickie has a significant rear vertical stabilizer and rudder. Applicant never stated that the applicant witnessed such flight of a two surface canard with a single tractor engine absent vertical stabilizer/rudder. The Examiner has pointed to no evidence of testing of a two surface canard wherein neither the source of power for the canard nor a significant vertical stabilizer and/or rudder are located on the empennage. The Examiner has pointed to no evidence supporting the assertion that one would have a reasonable expectation of such craft flying acceptably well, absent significant testing.

Reconsideration and further examination is respectfully requested.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Sue Z. Shaper, Applicants' Attorney at 713 550 5710 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

6/6/08
Date

Sue Z. Shaper
Attorney/Agent for Applicant(s)
Reg. No. 31663

Sue Z. Shaper
1800 West Loop South, Suite 1450
Houston, Texas 77027
Tel. 713 550 5710